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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/663,209	09/16/2003	Donald A. Baines	Agere-6 (Baines 1-3-7)	2357
26479	7590	10/17/2006	EXAMINER	
STRAUB & POKOTYLO 620 TINTON AVENUE BLDG. B, 2ND FLOOR TINTON FALLS, NJ 07724			PHAM, TAMMY T	
			ART UNIT	PAPER NUMBER
			2629	

DATE MAILED: 10/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/663,209	Applicant(s) BAINES ET AL.	
	Examiner Tammy Pham	Art Unit 2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 June 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Response to Amendment

Claim 1 have been cancelled. Claims 4, 6, 8 have been amended. Claims 2-27 are pending.

Claim Rejections - 35 USC § 112

Claim 20 recites the limitation "the first light source and the second light source." There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 12-18 are rejected under 35 U.S.C. 102(b) as being anticipated by KNEE et al. (US Patent No: 5,994,710).

As for claim 12, KNEE teaches of an apparatus method comprising: a) means for capturing a plurality of image parts in column 3, lines 37-38; b) means for determining position information corresponding to each of the plurality of image parts; and c) means for generating image information using, at least, the plurality of image parts and the corresponding position information in column 12, lines 49-53. In regards to establishing prima facie case of equivalence, look to the above cited sections of KNEE which performs the identical functions in the claim in substantially the same way, and produces substantially the same results as the

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corresponding element disclosed in the specification. *Kemco Sales, Inc. v. Control Papers Co.*, 208 F.3d 1352 (Fed. Cir. 2000).

As for claim 13, KNEE teaches that the position information includes coordinate information in column 12, lines 49-53.

As for claim 14, KNEE teaches that the position information includes change of position information in column 11, line 64.

As for claims 15-17, KNEE teaches that the position information includes orientation information {claim 15}; acceleration information {claim 16} and velocity information {claim 17} in column 1, lines 40-45.

As for claim 18, KNEE teaches that the means for capturing a plurality of image parts includes 1) a light source (2), and 2) an image pickup device (10), and wherein the means for determining position information includes 1) the light source (2), and 2) the image pickup device (10) in column 6, lines 10-30.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2-5, 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over KNEE et al. (US Patent No: 5,994,710) in view of MOON et al. (US Application No: 2005/0248532 A1).

As for claim 4, KNEE teaches of a method comprising: a) capturing a plurality of image parts in column 3, lines 37-38; b) determining position information corresponding to each of the plurality of image parts; and c) generating image information using, at least, the plurality of image parts and the corresponding position information in column 12, lines 49-53. KNEE goes on to teach that wherein the act of capturing a plurality of image parts includes focusing light (2) reflected from a surface onto an image pickup device (10) in column 6, lines 18-20.

KNEE fails to teach that the act of determining position information includes accepting, by the image pickup device (AKA: That the same image pickup device is use for both capturing a plurality of image parts and for determining position information corresponding to each of the image parts), light reflected from a surface.

MOON teaches that an image pickup device uses light reflected from a surface onto the image pickup device (Fig. 2) to allow for the capturing of image parts and the determination of position information (220) in Fig. 1.

It would have been obvious to one with ordinary skill in the art at the time the invention was made to combine the teachings of MOON so that the same image pickup device is use for both capturing a plurality of image parts and for determining position information corresponding to each of the image parts with the image pickup device of KNEE in order to implement an apparatus with both a mouse and scanner function (MOON: section [0001]).

As for claim 2, KNEE teaches that the position information includes coordinate information in column 12, lines 49-53.

As for claim 3, KNEE teaches that the position information includes change of position information in column 11, line 64.

As for claim 5, both KNEE and MOON teaches that the light reflected from the surface is emitted from a single light source in KNEE: column 6, lines 18-20 and MOON: Fig. 1.

As for claim 26, KNEE fails to teach that the image parts are captured from a paper document, and wherein the act of generating image information using, at least, the plurality of image parts and the corresponding position information uses the image parts to compose a larger image.

MOON teaches that the image parts are captured from a paper document, and wherein the act of generating image information using, at least, the plurality of image parts and the corresponding position information uses the image parts to compose a larger image in section [0033].

It would have been obvious to one with ordinary skill in the art at the time the invention was made to combine the image parts and the position information as collected by KNEE to be used together to compose a larger image as taught by MOON in order to properly carry out the scanning function when it is selected by the user (MOON: section [0033]).

Claims 6-11, 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over KNEE et al. (US Patent No: 5,994,710) in view of MOON et al. (US Application No: 2005/0248532 A1) and ANDERSON et al. (US Patent No: 6,657,184 B2).

As for claims 6, 10, KNEE teaches that the light (2) reflected from the surface is emitted from a first light source (2) wherein the light emitted from the first light source (2) and reflected from the surface onto the image pickup device is used in the act of capturing a plurality of image parts and determining position information in column 6, lines 18-20.

KNEE fails to teach of a second light source.

ANDERSON teaches of the light emitted from the second light source (27) in Fig. 3 and in column 6, lines 44-49.

It would have been obvious to one with ordinary skill in the art at the time the invention was made to include a second light source (27) as taught by ANDERSON with the image capturing apparatus of KNEE in order to have another light source that functions with another optical navigation circuit because it is well known in the art for each optical navigation circuit to have its own light source (see ANDERSON: column 4, line 3).

As for claims 7, 11, KNEE teaches of the light emitted from the first light source.

KNEE does not teach that the angle of incidence of the first light source is larger than that of the second light source.

ANDERSON teaches that the first light source has a larger angle of incidence with the surface than the light emitted from the second light source in Fig. 3.

It would have been obvious to one with ordinary skill in the art at the time the invention was made to have the angle of incident of the first light source be larger than that of the second light source as taught by ANDERSON with the image capturing apparatus of KNEE in order to provide a different field of view and orientation (see ANDERSON: column 3, lines 55-60).

As for claim 8, KNEE teaches a method comprising: a) capturing a plurality of image parts in column 3, lines 37-38; b) determining position information corresponding to each of the plurality of image parts; and c) generating image information using, at least, the plurality of image parts and the corresponding position information in column 12, lines 49-53. KNEE goes on to teach that wherein the act of capturing a plurality of image parts includes focusing light (2) reflected from a surface onto a first image pickup device (20-21, 32-33) in column 6, lines 18-20. KNEE goes on to teach of the act of determining position information includes focusing light reflected from the surface onto a second image pickup device (34, 34a) in column 6, lines 18-20 and in column 12, lines 63-3.

As for claim 9, KNEE teaches that light reflected from the surface is emitted from a single light source in column 6, lines 18-20.

As for claim 27, KNEE fails to teach that the image parts are captured from a paper document, and wherein the act of generating image information using, at least, the plurality of image parts and the corresponding position information uses the image parts to compose a larger image.

MOON teaches that the image parts are captured from a paper document, and wherein the act of generating image information using, at least, the plurality of image parts and the corresponding position information uses the image parts to compose a larger image in section [0033].

It would have been obvious to one with ordinary skill in the art at the time the invention was made to combine the image parts and the position information as collected by KNEE to be used together to compose a larger image as taught by MOON in order to properly carry out the scanning function when it is selected by the user (MOON: section [0033]).

Claims 19-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over KNEE et al. (US Patent No: 5,994,710) in view of ANDERSON et al. (US Patent No: 6,657,184 B2).

As for claims 19, 24 and 25, KNEE teaches of the apparatus of claim 12 wherein the means for capturing a plurality of image parts and the means for determining position information includes: 1) a first light source, and 2) an first/second image pickup device (20-21, 32-33) in column 5, lines 20-25.

KNEE fails to teach of a second light source.

ANDERSON teaches of a second light source in Fig. 3 and column 6, lines 44-49.

It would have been obvious to one with ordinary skill in the art at the time the invention was made to include a second light source (27) as taught by ANDERSON with the image capturing apparatus of KNEE in order to have another light source that functions with another

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optical navigation circuit because it is well known in the art for each optical navigation circuit to have its own light source (see ANDERSON: column 4, line 3).

As for claim 20, KNEE teaches a first light source (2) that emits light that illuminates a surface.

KNEE fails to teach a second light source or an angle of incidence associated with the first and second light sources.

ANDERSON teaches first (27) and second (3) light sources that emit light that illuminates a surface and that the light emitted from the first light (27) source has a larger angle of incidence with the surface than the light emitted from the second light source (3) in Fig. 3.

It would have been obvious to one with ordinary skill in the art at the time the invention was made to have the angle of incident of the first light source be larger than that of the second light source as taught by ANDERSON with the image capturing apparatus of KNEE in order to provide a different field of view and orientation (see ANDERSON: column 3, lines 55-60).

As for claims 21-22, KNEE as modified by ANDERSON teaches that the second light source is a light emitting diode {claim 21}; infra-red light emitting diode {claim 22} in KNEE: column 5, lines 20-25.

As for claim 23, ANDERSON teaches of the second light source is a tunable light source able to modulate at least one of wavelength, polarization, and amplitude in column 6, lines 44-65.

Response to Arguments

Applicant's arguments with respect to claims 2-27 have been considered but are moot in view of the new ground(s) of rejection.

In regards to the argument on page 9, that for claim 4, KNEE fails to teach that “the same image pickup device is used for both capturing a plurality of image parts and for determining position information corresponding to each of the image parts,” please refer to the new reference of MOON in section [0029] and in Fig. 1. Claims 2, 3, 5-7 are dependent on claim 4 and hence follow similar reasoning.

In regards to the argument on page 10, that for claim 12, one “has not shown how the structure of the KNEE patent is the same or equivalent to the structure described in the specification,” Examiner has added numbers and specifics sections that relates KNEE to claim 12. Claims 13-18 depends on claim 12 and hence follow similar reasoning. Look to column 3, lines 37-38; column 12, lines 49-53 for further reference. Also, in regards to establishing prima facie case of equivalence, look to the above cited sections of KNEE which performs the identical functions in the claim in substantially the same way, and produces substantially the same results as the corresponding element disclosed in the specification. *Kemco Sales, Inc. v. Control Papers Co.*, 208 F.3d 1352 (Fed. Cir. 2000). If Applicant still has concerns or questions as to how the reference of KNEE reads upon the claims, please feel free to call the Examiner at 571.272.7773.

In regards to the argument on page 11, that for claims 6-7, 19-25, that ANDERSON fails to “compensate for the deficiencies of the KNEE patent,” please refer to the MOON patent as mentioned above.

In regards to the argument on page 12, that for claims 8-11, Examiner acknowledges that items 410 and 470 in Fig. 4 of the application adequately shows that two imaging devices for pickup.

In regards to the argument on page 12, it is stated that the reference of ANDERSON lacks motivations for combining with KNEE since “the multiple light sources and sensor areas in the ANDERSON patent are only used for navigation.” ANDERSON teaches that it is well known to provide either a common light source or one light source per navigation circuit. The reference of KNEE has at least one light source that is shared among the various image and navigation sensors. KNEE clearly teaches of two navigation sensors in Fig. 3 (20-21, 32-33). The teachings of ANDERSON allows each navigation sensors to have its own light source and hence by incorporating this specific teaching of ANDERSON with the apparatus of KNEE, there is the possibility to have more than one light source.

Please note that, claim 20 recites the limitation “the first light source and the second light source.” There is insufficient antecedent basis for this limitation in the claim.

Newly added claims 26-7 have been treated above.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tammy Pham whose telephone number is (571) 272-7773. The examiner can normally be reached on 8:00-5:30 (Mon-Fri).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sumati Lefkowitz can be reached on (571) 272-3638. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

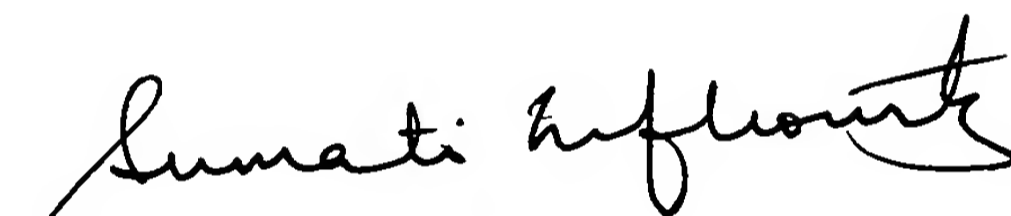
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Tammy Pham

10/13/2006



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